FROM:
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I am writing you, as a concerned amateur radio operator, to alert you to decisions being made by the FCC that may have far reaching implications for the amateur radio service, as well as all other licensed radio services in this country.

The FCC is currently promoting, with insufficient examination, an unlicensed broadband Internet technology known as Broadband over Power Line (BPL). BPL, however, is proving to be a serious threat to the amateur radio service, and a point of concern for other licensed radio services operating in the High Frequency (HF) spectrum.

Amateur radio can no longer be considered a "quaint" hobby with radio amateurs sending Morse code to other radio amateurs across the world. Post-9/11, radio amateurs are increasingly being viewed as part of our emergency communications infrastructure. As such, they are being looked upon as an integral part of the "first responder" apparatus promoted under the Homeland Security initiative. Radio amateurs provided assistance during recent disasters such as hurricane Isabel and the fires in southern California. They provided crucial assistance during the space shuttle Columbia recovery effort. They also provided communications after the World Trade Center attacks when cell phones and other municipal services were disrupted and overloaded.

While radio amateurs and other public services frequently use Very High Frequency (VHF) and Ultra High Frequency (UHF) communications in emergencies, HF communications remains an important component of the emergency communications network. HF communications provides long-range/medium-range operational capabilities, allowing communications to occur when electrical power and radio towers are disrupted or disabled. Radio amateurs can operate HF communications equipment in a "stand alone" arrangement, either from fixed or mobile stations. When operating from vehicles, they can provide wide-range communications without relying on other infrastructure. Trained volunteers that routinely practice emergency message traffic handling are also able to relay voice and data messages during a crisis.

Radio amateurs have also been at the vanguard of technological advances in HF communications. With as little as 5 watts of power and a laptop computer, radio amateurs are able to send and receive digital messages in a mobile setting. They also use HF communications to communicate with satellites built by other dedicated radio amateurs. In short, HF communications provides a place for many new ideas to be developed and serves as an important training ground for furthering educational opportunities in wireless technology.

BPL, however, threatens HF communications for all radio amateurs, as well as short-wave listeners, radio astronomers and some state and local government agencies. It even

threatens to interfere with the U.S. Government time and frequency standard signals sent by WWV, the HF radio station operated by NIST in Boulder, Colorado.

BPL interference also cuts both ways. Just as BPL has been shown to produce interference to radio amateurs operating in the HF spectrum, BPL has been shown to be susceptible to interference from radio amateur equipment operating at legal power levels. For example, radio amateurs are permitted to operate at power levels of up to 1500 watts in the HF spectrum. Informal tests conducted by radio amateurs in nearby Washington, DC suburbs have shown that, with power levels as low as 100 watts, BPL communications can be completely disrupted.

Rather than acting as an arbiter for competing interests, the FCC is unfortunately acting as a champion for BPL technology. The FCC is not acting with the proper diligence in this matter, and is letting business interests get ahead of sound technical decisions.

Referring to comments made by Chairman Powell and Commissioners Abernathy, Adelstein, Copps and Martin (RE: "Inquiry Regarding Carrier Current Systems, including Broadband over Power Line Systems" ET Docket No. 03-XXX, Notice of Inquiry adopted April 23, 2003, ET Docket No. 03-104), the FCC appears to be championing this technology, rather than examining its implications in a scientific manner. Quoting Chairman Powell,

"Today's notice explores ways to update our rules to ensure that regulatory uncertainty does not in any way hinder the deployment of these new services. Ultimately it will be for the marketplace to decide how broadband over power lines fits into tomorrow's competitive telecommunications landscape, but we welcome them to the frontier of the digital migration."

Nowhere in Chairman Powell's statement does he indicate (should interference to licensed services exist) that the FCC would consider abandoning support for BPL. If the marketplace and financial interests decide how much interference any other licensed service must tolerate, no wireless user will be immune from disruptions in the future. Consider, for example, if BPL were to operate in the 88-108 MHz spectrum (the FM broadcast band) or 54-72 MHz (the lower part of the broadcast television band). One could easily imagine the outrage from the broadcast industry about interference to their LICENSED radio services!

At a speech a few months ago, Commissioner Abernathy was quoted as saying that BPL is "broadband Nirvana," a statement that she only recently retracted when questioned in a public forum by an amateur radio organization. BPL is not "Nirvana." It is an ill-conceived communications medium that is not robust enough to effectively compete with other broadband services such as DSL, cable modems, satellite and licensed wireless services. BPL is the communications equivalent of shipping gasoline through sewer systems rather than through pipelines. Just because sewer lines are able to transport fluids and are commonly found throughout the country doesn't mean that they're suitable for

transporting hazardous and flammable liquids! Similarly, BPL is a source of pollution in the HF spectrum and an unnecessary hazard to HF communications.

Only Commissioner Adelstein, in his comments on the same Notice of Inquiry (NOI), seemed to understand the possible technical implications of BPL technology on HF communications. In his comments regarding the NOI inquiry he said,

"Thus, I believe that while we must be mindful of harmful interference, we cannot let unsupported claims stand in the way of such an innovation as BPL systems. Provided that the engineering bears out, I believe that we need to push the boundaries to accommodate new technologies… However, the technology is still is in the earliest stages of development and testing, and the NOI was draftedd with the sole focus of addressing the technical issues associated with BPL systems, not the policy ones. This item does not seem to be the right place to tackle these important questions. I will support revisiting these non-technical issues once the Commission gets a bettter understanding of the technology and associated deployment of BPL systems."

Amateur radio is a licensed radio service that should rightly be treated as a national asset in times of crisis and as an incubator for technological innovations. BPL is an unlicensed networking technology threatening licensed radio services operating in the HF spectrum. It is not robust enough to survive interference from legally operated equipment and, if fully deployed, would end up providing unreliable service to its subscribers. I am asking you to challenge the FCC commissioners and have them explain their actions and comments regarding BPL. Also, I am asking for your support in helping to keep BPL from interfering with HF communications now and in the future.

Respectfully,

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